



# Cross sectional malaria surveys in 4 villages on the Thai-Burmese Border

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### OBJECTIVE

- Determine the prevalence of *P.falciparum* (Pf) and *P.vivax* (Pv) in 4 villages in Myanmar close to Thailand
- Investigate the dynamics, and the geographical patterns of malaria
- Examine the changing in prevalence between dry and rainy season

### RESULTS

#### *P. falciparum* & *P. vivax*

- Pf dry season prevalence rate = 3.9% ranging from 2% to 6%
- Pf rainy season prevalence = 3.9% ranging from 2% to 7%
- Male adults were 4 fold more at risk of Pf than to adult women: Pf = 2% for women, and 9% men, (RR=4.1, P=0.001)
- Pv dry season = 12%, ranging from 10% to 15%
- Pv rainy season = 11.2% ranging from 10% to 12%
- No gender difference
- 5 - 14 y.o was prevalence significantly higher compared to the 0 to 4 age group (10%), and the adults: 9% (RR=2.2, P=0.001)

#### ratio Pf / Pv

- Almost all Pf / Pv ratios < 1 (the prevalence of Pv is higher than the prevalence of Pf)
- In the group of male adults Pf / Pv ratio > 1 (the prevalence of Pf is higher than Pv) contrasting from all the other groups

### METHODS

- Cross sectional surveys May and August 2006 in 4 Myanmar villages opposite Tak province (Fig. 1)
- Permission given by each village headman
- Prior to the surveys village census were conducted and the households were mapped
- In Kana, Lay Ghaw, Palu Lay, surveys were exhaustive, in Tay Baw Boe (TBB) 100 households randomly selected
- Screening by malaria smear: all household occupants
- Age, sex, pregnancy status and history of fever were recorded
- People with fever or history of fever (last 2 days) also had a Paracheck®
- If positive: mefloquine-artesunate MAS3 treatment
- If negative: chloroquine treatment
- All positive smear results: home visitors back to the household for treatment within 2 days

### MAPS

Figure 1 : Location of the surveys

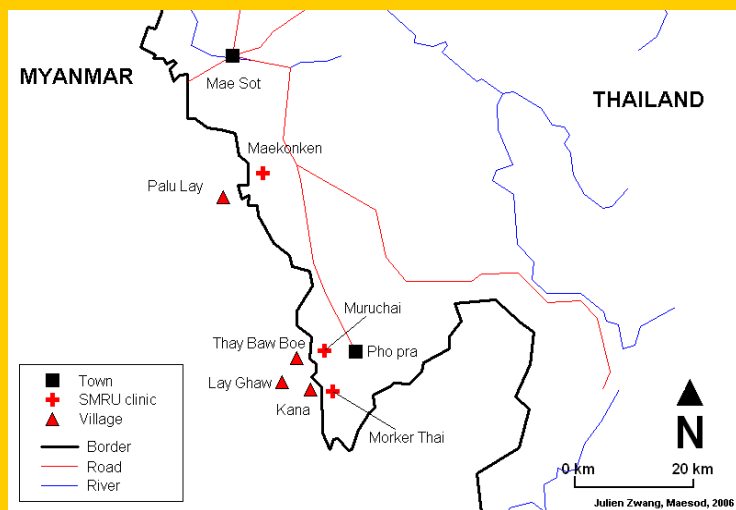
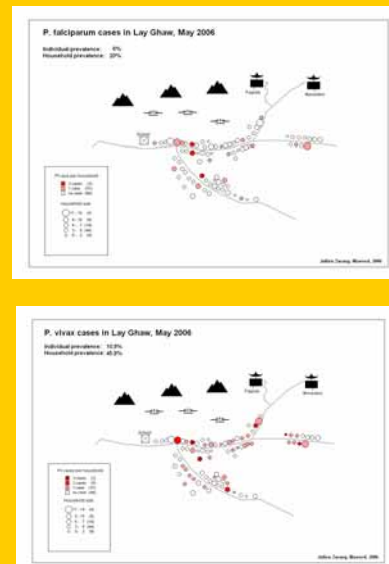


Figure 2 & 3 : Pf and Pv prevalence in Lay Ghaw



### CONCLUSIONS

- High prevalence on the Myanmar side of the border
- Pf: male adults were 4 fold more at risk compared to female adults
- Pv: 5 - 14 y.o 2 fold more at risk than others age groups
- No seasonal difference
- Malaria under control but risk of transmission of Pf due to migration from other areas of Myanmar
- Transmission of malaria in the permanent population is decreased by good coverage for early diagnosis and early treatment with MAS3
- Pv gametocyte prevalence is higher than Pf

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